Attachment 1

TASK ORDER FOR
ENGINEER-OWNER AGREEMENT
Exhibit A – Task Order No. 16

Task Order No. 16 is entered into and authorized by City of Republic, Missouri this __ day of _____ 2024, by and between City of Republic, Missouri (hereinafter called OWNER) and Burns & McDonnell Engineering Company, Inc. (hereinafter called ENGINEER).

The parties agree that the ENGINEER shall perform the following Services in accordance with the terms of the Engineer-Owner Agreement dated January 2, 2018:

Scope of Services:

A. ENGINEER will assist OWNER in completing Phase 1 of the 2-Phase water master plan update. Phase 1 of the water master plan update includes: data collection and review, level of service review, diurnal analyses, water demand projections, desktop storage evaluation and desktop supply/pumping evaluation. For a description of the scope of services to be provided, see attached Exhibit B.

Compensation:

A. Amount of Payment:
   1. For Services performed, OWNER shall pay ENGINEER the lump sum amount of Forty-Five Thousand Dollars ($45,000.00).

   2. For additional, reduced, or changed Scope of Services, the amount of payment shall be adjusted on a mutually agreeable lump sum basis.

B. Statements:
   1. Monthly statements will be submitted by ENGINEER to OWNER. Statements will be based on ENGINEER's estimated percent of Services completed at the end of the preceding month.

Time of Service:

A. ENGINEER will proceed with providing the services set forth herein within approximately 5 days of the execution of this Task Order. It is anticipated that these services will be completed within approximately 180 days of the execution of this Task Order.

B. Completing the services within the above time frame is contingent upon timely receipt of required information, approval, and/or reviews.

Other Terms:

A. The terms of this Task Order supersede any contrary terms of the Engineer-Owner Agreement.

IN WITNESS WHEREOF, the parties have made and executed this TASK ORDER as of the day and year first above written.

OWNER: City of Republic, Missouri		**ENGINEER: Burns & McDonnell Engineering Company, Inc.**	
By:	_____	By:	_____
Name:	_____	Name:	_____
Title:	_____	Title:	_____

Exhibit B – Task Order No. 16

City of Republic, Missouri
Phase 1 – 2025 Water Master Plan Update

Objective: ENGINEER will assist OWNER in completing Phase 1 of the 2-Phase Water Master Plan Update. Phase 1 scope of work, included within this task order, includes: data collection and review, level of service review, diurnal analyses, water demand projections, desktop storage evaluation and desktop supply/pumping evaluation. The future Phase 2 scope of work, not included within this task order, will include: GIS and hydraulic model updates, field testing and model calibration, finalization of the level of service review, water distribution system master planning, distribution system hydraulic modeling, and development of opinions of probable cost and reporting.

Scope of Services:

1. Project Management:
    a. Conduct a project kickoff meeting with OWNER to include project goals, scope, schedule, required data, field testing plan, and other pertinent items.
    b. Provide project management and quality-assurance/quality-control through the duration of the project.
    c. ENGINEER shall prepare and distribute agendas and workshop/meeting minutes. Meetings include the following:
        i. Project kickoff meeting (virtual).
        ii. Data collection (virtual).
        iii. Data review and master planning (in-person, project manager only).
        iv. Draft report review (in-person, project manager only).
2. Data Collection and Review
    a. Prepare RFI.
    b. Collect and review historical customer billing data (monthly basis) by customer class, annual meter demographics by customer class, and annual well production annual average day history and maximum day history. SCADA information including seven consecutive days at hourly intervals on well production (flow) and elevated tank levels.
3. Level of Service Review:
    a. Coordinate with OWNER to determine the following criteria:
        i. Minimum storage requirement and associated volumetric storage allocations for equalization, fire, and emergency reserves.
        ii. Level of redundancy desired for elevated storage.
        iii. Water main and/or transmission main velocity and headloss criteria.
        iv. Redundancy and reliability of distribution system capacity at highway and railroad crossings.

v. Maximum and minimum pressures under normal service and minimum pressure under fire service conditions; fire flow requirement.

4. Diurnal Analyses:

    a. Determine peak hour, minimum hour, and equalization storage factors for each 24-hour period for seven days during a high demand period captured by OWNER's SCADA system:

    b. Prepare distribution system diurnal patterns from SCADA data.

5. Water Demand Projections:

    a. Review historical water usage and customer consumption data.

    b. Project customer meters by class and develop a range of draft water demand projections based on the selected water usage methodology:

        i. Evaluate historical seasonal demand patterns with normalized deviations for precipitation and weather during peak demand seasons to determine the need and degree of a dry-year water usage demand multiplier.

        ii. Determine nonrevenue water component based on recent historical annual highs and/or 12-month rolling average defined as the difference between metered well pumping and customer billing data.

        iii. Work with OWNER to determine anticipated and/or known changes in existing large user water demands and timing.

        iv. Work with OWNER to determine water demand allowance for new large customers and timing within OWNERs water service area.

    c. Prepare water demand projections for the current year, 5-year planning period, and a 20-year planning horizon for the distribution system.

6. Desktop Storage Evaluation:

    a. Evaluate and compare available storage and effective storage volumes in the distribution system.

    b. Evaluate storage requirements including reserves for equalization, fire, flow, and emergency service for the existing and projected water demands and identify surplus/deficit status.

    c. Identify demand trigger(s) to supplement storage deficit(s) with sizing recommendations for additional storage in the distribution system within the respective planning periods.

7. Desktop Supply/Pumping Evaluation:

    a. Evaluate total and firm pumping capacity for comparative analysis with the water demand projections.

    b. Identify demand triggers to supplement supply/pumping deficits with sizing recommendations for additional capacity within the respective planning periods.

8. Prepare Phase 1 draft report and deliver electronic copy to OWNER for review and comment. Prepare two (2) hard copies and an electronic copy of the final report.

Deliverables:

1. Phase 1 2025 Water Master Plan Update Draft Report
2. Phase 1 2025 Water Master Plan Update Final Report

Responsibilities of OWNER:

1. Attend all meetings.
2. Provide updated 5-year and 20-year growth and development list.
3. Respond to and provide project information requested by ENGINEER in the Request for Information list.

City of Republic, Missouri
Phase 1 - 2025 Water Master Plan Update
Engineering Fee Estimate

Labor

Scope	Project Mgr Level 14	Project Engr Level 9	QA/QC Level 14
Project management	10		
Meetings	4		
Site Visits (2)	24		
Data Collection and Review	2	8	
Level of Service Review	2	2	
Diurnal Analysis	2	12	
Water Demand Projections	40	8	
Water Distribution System Planning	4	8	
Desktop Storage Analysis	4		
Desktop Pumping Analysis	4		
Prepare draft report.	16		
Address comments, deliver final report	4		
QA/QC			4

Fee Estimate

Project Costs (Labor, Expenses, Technology)

Total Labor Hours		116		38		4
BMR 24-6 Billing Rate	$	291	$	186	$	291
Labor Cost	$	33,756	$	7,068	$	1,164
Total Labor Hours		158				
Labor Fee	**$**	**41,988**	**Avg Rate/hr**		**$**	**266**

Project Expenses

Tech Charge @ $9.95	$	1,572
Printing	$	59
Travel (fleet, hotel, food)	$	1,381
Equipment (data loggers, gauges, wrenches, etc.)	$	-
Total Project Expenses	**$**	**3,012**

Base Scope Fee **$ 45,000**